

What is claimed is:

1. A method for screening for compounds useful for the treatment or amelioration of preeclampsia and/or the symptoms thereof comprising:
  - 5 inducing preeclampsia in an animal with a BPH/5 phenotype;
    - administering a test compound to the animal; and
    - monitoring the animal for amelioration or elimination of preeclampsia or its symptoms, wherein amelioration or elimination of preeclampsia or its symptoms in the animal indicates usefulness of the compound for the
  - 10 treatment of preeclampsia.
2. The method of claim 1, wherein the animal is a mouse.
3. The method of claim 2, wherein the mouse is a BPH/5 mouse.
- 15 4. The method of claim 3, wherein preeclampsia is induced by mating the BPH/5 mouse with another mouse such that the BPH/5 mouse becomes pregnant.
5. A method for screening for compounds useful for the treatment of preeclampsia comprising:
  - 20 mating a BPH/5 mouse with another mouse such that the BPH/5 mouse becomes pregnant;
  - administering a test compound to the pregnant BPH/5 mouse;
  - and

monitoring the pregnant BPH/5 mouse for amelioration or  
elimination of preeclampsia, wherein amelioration or elimination of preeclampsia  
in the pregnant BPH/5 mouse indicates usefulness of the compound for the treatment of  
preeclampsia.

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6. A method of detecting placental abnormalities in a animal suffering from  
preeclampsia comprising:

inducing preeclampsia in an animal having a BPH/5 phenotype;

and

10 monitoring the expression of a gene product wherein a  
downregulation of expression of the gene is indicative of impaired placental  
development associated with preeclampsia.

7. The method of claim 6 wherein said gene is selected from the group consisting of

15 Placental Lactogen (PL) 1, Placental Lactogen (PL) 2, Insulin-like Growth Factor 2,  
Proliferin (PRF), Proliferin-related protein (Prp), VEGF, sFlt-1, and Adrenomedulin.

8. The method of claim 7, wherein the animal is a mouse.

20 9. The method of claim 8, wherein the mouse is BPH/5 mouse.

10. A method of producing an animal that exhibits symptoms of preeclampsia

comprising:

inducing pregnancy in an BPH/5 animal;

evaluating the presence pathological features characterized

by placental morphological abnormalities, downregulation of genes associated with placental angiogenesis, and a decrease in uterine blood flow, whereby these features is indicative of the animal having preeclampsia relative to a control animal.

5 11. The method of claim 10, wherein the animal is a mouse.

12. The method of claim 11, wherein the mouse is BPH/5 mouse.

13. A method of screening a candidate compound for alleviating preeclampsia, said  
10 method comprising:  
inducing preeclampsia in an animal;  
administering a compound to said animal; and  
comparing the induced preeclampsia condition in said animal  
with the induced preeclampsia condition in a control animal that did not receive  
15 said candidate compound, wherein an amelioration or elimination in the  
preeclampsia condition of the treated animal is indicative of the alleviating activity  
of said candidate compound.

14. The method of claim 13, wherein the animal is a mouse.

20 15. The method of claim 14, wherein the mouse is BPH/5 mouse.

16. A method of screening a candidate compound for the prevention of preeclampsia,  
said method comprising:  
administering a compound to an animal with a BPH/5 phenotype;

inducing pregnancy in an animal; and  
5  
comparing the pregnant condition in said animal with said  
candidate agent with a pregnant control BPH/5 exhibiting preeclampsia, wherein  
the prevention or reduction of the affects of the preeclampsia condition of the  
treated animal is indicative of the alleviating activity of said candidate compound.

17. A method of screening a candidate compound for alleviating the symptoms of  
preeclampsia, said method comprising:  
inducing preeclampsia in a BPH/5 phenotype animal;  
10 administering a compound to said animal; and  
comparing the induced preeclampsia condition in said animal  
with the induced preeclampsia condition in a control animal that did not receive  
said candidate compound,  
wherein an amelioration or elimination in the preeclampsia condition of the treated animal  
15 is indicative of the alleviating activity of said candidate compound.

18. The method of claim 17, wherein said animal is a mouse.

19. The method of claim 18 wherein said animal is a BPH/5 mouse.

20. An animal model for identifying agents which alleviate the symptoms of, treat,  
reduce the severity of, or prevent preeclampsia comprising:  
a pregnant BPH/5 mouse, and  
an agent suspected of alleviate the symptoms of, treat,

reduce the severity of or prevent preeclampsia which has been introduced to said mouse.

21. An animal model produced according to the method of claim 5.